



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,436	04/19/2001	Istvan Cseri	MSFT-0323/167389.1	2254
41505	7590	12/15/2005		
WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) ONE LIBERTY PLACE - 46TH FLOOR PHILADELPHIA, PA 19103			EXAMINER	ZHONG, CHAD
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/838,436	CSERI ET AL.	
	Examiner	Art Unit	
	Chad Zhong	2152	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 August 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-28 and 30-38 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-28 and 30-38 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/12/2005 has been entered.

Claims 1, 12, 16, 20, 23, 27, and 38 are currently amended. Claim 29 is cancelled.

Claims 1-28 and 30-38 are presented for examination.

Claim Rejections - 35 USC § 112, second paragraph

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 12, 16, 20, 23, 27, and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The claim language in the following claims is not clearly understood, rendering the claims indefinite:

i. As per claim 1, 12, 16, 20, 23, 27, and 38, it is not clearly understood what is meant by "incrementally consumable form", due to the lack of definition for incrementally consumable form, examiner will interpret this phrase as "parsed / executed one at a time in an orderly format".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-28 and 30-38 are rejected under 35 U.S.C. 102(a) as being anticipated by Girardot et al. (Millau: an Encoding format for efficient representation and exchange of XML over the Web" Computer Networks 2000), hereinafter Girardot.

6. Regarding claims 1-2, Girardot disclosed a method for generating a data stream according to a binary format of a tag-based description language comprising tokenizing tag names and tokenizing attribute names into numeric tokens for use in the data stream (page 749, column 1, 3. The Millau compression model paragraphs 1-2; page 751 Table 2, column 1, 4.0 Millau API: specification and implementation paragraph 1; pg 750, Col. 1 through pg 751, Col. 1, within this section there is an sample XML document, the document has been tokenized to numbers in hexadecimal for ease of processing, Attribute Name to Token Number are displayed in Table 1 and 2 of the specification for reference purposes. Thus after the transformation from program format to numbered token format, the XML code section has been tokenized and broken into various pieces represented by tokens),

wherein the numeric tokens are in incrementally consumable form (pages 752-753 4.2. The Millau binary SAX parser, pages 753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot, tokenized information are parsed and attribute information are retrieved by various parsers. Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the

element code space. It then creates an element node. If the stack is empty, it means that this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack)).

7. Regarding claim 3-4, Girardot disclosed a method wherein said numeric tokens for tag names and attribute names are variable sized (page 750 Table 1).

8. Regarding claim 5, Girardot disclosed a method wherein said tokenizing of attributes enables values natively stored as binary data types to be inserted into the data stream (page 750 column 1 paragraph 2).

9. Regarding claim 6, Girardot disclosed a method wherein said tokenizing of tag names includes inserting a name definition construct into the data stream the first time a tag name is encountered for purposes of recreating the tag names by a device that receives the data stream (page 751 4. Millau API: specification and implementation).

10. Regarding claim 7, Girardot disclosed a method wherein the tag-based description language is extensible markup language (XML) (Title, page 750 column 1 paragraph 2).

11. Regarding claim 8, Girardot disclosed a method wherein the tokenizing of the tag and attribute names decreases the time elapsed parsing the data stream by a device that receives the data stream, the time being decreased relative to the parsing of a corresponding text-based format of the tag-based description language (page 752 4.2 The Millau binary SAX parser).

12. Regarding claim 9, Girardot disclosed a method wherein the tokenizing of the tag and attribute names decreases overhead incident to formatting data for representation

according to the tag-based description language (page 751 column 1, 4.0 Millau API: specification and implementation paragraphs 1-2).

14. Regarding claim 10, Girardot disclosed a method wherein the tokenizing of the tag and attribute names decreases the size of the resulting data file formatted according to the tag-based description language (page 748 column 1 paragraph 2, column 2 paragraph 4; page 751 column 1).

15. Regarding claim 11, the A computer readable medium bearing computer executable instructions corresponds directly to the method of claim 1, and thus is rejected using the same rationale.

16. Regarding claim 12, Girardot disclosed a computer readable medium bearing computer executable instructions for carrying out the method of receiving a well-formed document in a text format of a tag-based description language and converting the document to a binary format via tokenization of the tag and attribute names into numeric tokens (page 749, column 1, 3.The Millau compression model paragraphs 1-2; page 751 Table 2, column 1, 4.0 Millau API: specification and implementation paragraph 1; pg 750, Col. 1 through pg 751, Col. 1, within this section there is an sample XML document, the document has been tokenized to numbers in hexadecimal for ease of processing, Attribute Name to Token Number are displayed in Table 1 and 2 of the specification for reference purposes. Thus after the transformation from program format to numbered token format, the XML code section has been tokenized and broken into various pieces represented by tokens),

wherein the numeric tokens are in incrementally consumable form (pages 752-753 4.2.

The Millau binary SAX parser, pages 753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot,

tokenized information are parsed and attribute information are retrieved by various parsers.

Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the element code space. It then creates an element node. If the stack is empty, it means that this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack)).

17. Regarding claim 13, Girardot disclosed a computer readable medium wherein said tokenization of attributes enables values natively stored as binary data types to be inserted into the data stream (page 750 column 1 paragraph 2).

18. Regarding claim 14, Girardot disclosed a computer readable medium wherein said tokenization of tag names includes inserting a name definition construct into the data stream the first time a tag name is encountered for purposes of recreating the tag names by a device that receives the data stream (page 751 4. Millau API: specification and implementation).

19. Regarding claim 15, Girardot disclosed a computer readable medium said receiving includes receiving a document formatted according to a text format of XML (Title, page 750 column 1 paragraph 2, page 751 column 1).

20. As per claim 16, Girardot teaches a computer readable medium bearing computer executable instructions for carrying out the method of assembling data into a document according to a binary format by tokenizing the tag and attribute names into variable sized numeric tokens (page 749 column 1, 3.The Millau compression model paragraphs 1-2; page 751 Table 2 and column 1; pg 750, Col. 1 through pg 751, Col. 1, within this section there is an sample XML

document, the document has been tokenized to numbers in hexadecimal for ease of processing, Attribute Name to Token Number are displayed in Table 1 and 2 of the specification for reference purposes. Thus after the transformation from program format to numbered token format, the XML code section has been tokenized and broken into various pieces represented by tokens),

wherein the numeric tokens are in incrementally consumable form (pages 752-753 4.2.

The Millau binary SAX parser, pages 753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot, tokenized information are parsed and attribute information are retrieved by various parsers. Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the element code space. It then creates an element node. If the stack is empty, it means that this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack)).

21. Regarding claim 17, Girardot disclosed a computer readable medium wherein said tokenizing of attributes enables values natively stored as binary data types to be inserted into the data stream (page 750 column 1 paragraph 2).

22. Regarding claim 18, Girardot disclosed a computer readable medium wherein said tokenizing of tag names includes inserting a name definition construct into the data stream the first time a tag name is encountered for purposes of recreating the tag names by a device that receives the data stream (page 751 4. Millau API: specification and implementation).

23. Regarding claim 19, Girardot disclosed a computer readable medium said receiving include:

receiving a document formatted according to a text format of XML (Title, page 750 column 1 paragraph 2, page 751 column 1).

24. Regarding claim 20, Girardot disclosed a computer readable medium bearing computer executable instructions for carrying out the method of receiving a document formatted according to a binary format of a tag-based description language and directly parsing the data in the document for use by another element in a computer system (pages 752-753 4.2 The Millau binary SAX parser),

wherein the document is consumed incrementally, and directly parsing the data in the document for use by another element in a computer system (pages 752-753 4.2. The Millau binary SAX parser, pages 753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot, tokenized information are parsed and attribute information are retrieved by various parsers. Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the element code space. It then creates an element node. If the stack is empty, it means that this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack), note, that the tokens are derived from the formal document, thus, parsing the tokens in a sequential manner provides the means to parsing the document sequentially).

25. Regarding claim 21, Girardot disclosed a computer readable medium wherein before said parsing,

said method includes converting the document to a text format of the tag-based description language (pages 752-753 4.2 The Millau binary SAX parser).

26. Regarding claim 22, Girardot disclosed a computer readable medium wherein said receiving includes receiving a document formatted according to a binary format of XML (Title, page 1750 column 1 paragraph 2, page 751 column 1).

27. Regarding claim 23, Girardot disclosed a computing device comprising means for receiving a well-formed document in a text format of a tag-based description language; means for converting the document to a binary format via tokenization of the tag and attribute names into variable sized numeric tokens (page 749 column 1, 3.The Millau compression model paragraphs 1-2; page 751 Table 2 and column 1; pg 750, Col. 1 through pg 751, Col. 1, within this section there is an sample XML document, the document has been tokenized to numbers in hexadecimal for ease of processing, Attribute Name to Token Number are displayed in Table 1 and 2 of the specification for reference purposes. Thus after the transformation from program format to numbered token format, the XML code section has been tokenized and broken into various pieces represented by tokens);

wherein the numeric tokens are in incrementally consumable form (pages 752-753 4.2. The Millau binary SAX parser, pages753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot, tokenized information are parsed and attribute information are retrieved by various parsers. Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the element code space. It then creates an element node. If the stack is empty, it means that

this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack); and

means for converting the document back to the text format without a loss of fidelity (page 749 column 1 3. The Millau compression model paragraphs 1-2; page 750 paragraphs 2; page 751 column 1; pages 752-753 4.2 The Millau binary SAX parser).

28. Regarding claim 24, Girardot disclosed a computing device wherein said tokenization of attributes enables values natively stored as binary data types to be inserted into the data stream (page 750 column 1 paragraph 2).

29. Regarding claim 25, Girardot disclosed a computing device wherein said tokenization of tag names includes inserting a name definition construct into the data stream the first time a tag name is encountered for purposes of recreating the tag names by a device that receives the data stream (page 751 4. Millau API: specification and implementation).

30. Regarding claim 26, Girardot disclosed a computing device said tag-based description language is XML (Title, page 750 column 1 paragraph 2).

31. Regarding claim 27, Girardot disclosed in a system in which a transmitting device transmits in a streaming fashion data formatted according to a tag-based description language, a method for generating a data stream according to a binary format of the tag-based description language, comprising:

for each unique tag name, at the first time a tag name of the data is encountered, tokenizing the tag name into a numeric token and transmitting the token and the text associated with the tag name (page 749 column 1, 3.The Millau compression model

paragraphs 1-2; page 751 Table 2 and column 1; pg 750, Col. 1 through pg 751, Col. 1, within this section there is an sample XML document, the document has been tokenized to numbers in hexadecimal for ease of processing, Attribute Name to Token Number are displayed in Table 1 and 2 of the specification for reference purposes. Thus after the transformation from program format to numbered token format, the XML code section has been tokenized and broken into various pieces represented by tokens),

wherein the data in the data stream is transmitted incrementally to the receiving device and the receiving device parsed said data as said data is received (pages 752-753 4.2. The Millau binary SAX parser, pages753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot, tokenized information are parsed and attribute information are retrieved by various parsers. Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the element code space. It then creates an element node. If the stack is empty, it means that this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack); and

at any time subsequent to the first time that the tag name of the data is encountered, transmitting the numeric token without the text (page 748 column 2 paragraph 1; page 749 column 1 3. The Millau compression model paragraphs 1-2; page 750 paragraph 2; page 751 column 1; pages '152-753 4.2 The Millau binary SAX parser).

32. Regarding claim 28, Girardot disclosed a method further comprising tokenizing

attribute names into numeric tokens (page 749 column 1, 3.The Millau compression model paragraphs 1-2; page 751 Table 2).

33. Regarding claim 30-31, Girardot disclosed a method wherein said numeric tokens for tag names and attribute names are variable sized (page 750 Table 1).

34. Regarding claim 32, Girardot disclosed a method wherein said tokenizing of attributes enables values natively stored as binary data types to be inserted into the data stream (page 750 column 1 paragraph 2).

35. Regarding claim 33, Girardot disclosed a method wherein the tag-based description language is extensible markup language (XML) (Title, page 750 column 1 paragraph 2).

36. Regarding claim 34, Girardot disclosed a method wherein the tokenizing of the tag and attribute names decreases the time elapsed parsing the data stream by a device that receives the data stream, the time being decreased relative to the parsing of a corresponding text-based format of the tag-based description language (page 752 4.2 The Millau binary SAX parser).

37. Regarding claim 35, Girardot disclosed a method wherein the tokenizing of the tag and attribute names decreases overhead incident to formatting data for representation according to the tag-based description language (page 748 column 1 paragraph 2, column 2 paragraph 4; page 751 column 1).

38. Regarding claim 36, Girardot disclosed a method wherein the tokenizing of the tag and attribute names decreases the size of the resulting data file formatted according to the tag-based

description language (page 748 column 1 paragraph 2, column 2 paragraph 4; page 751 column 1).

39. Regarding claim 37, the A computer readable medium bearing computer executable instructions corresponds directly to the method of claim 27, and thus is rejected using the same rationale.

40. Regarding claim 38, Girardot disclosed a method for generating a data stream according to an XML binary format, comprising:

tokenizing tag names and attribute names into variable sized numeric tokens, wherein said tokenizing of attributes enables values natively stored as binary data types to be inserted into the data stream, wherein said tokenizing of tag names includes inserting a name definition construct into the data stream the first time a tag name is encountered for purposes of recreating the tag names by a device that receives the data stream, thereby decreasing parsing time (page 748 column 2 paragraph 1; page 749 column 1 3. The Millau compression model paragraphs 1-2; page 750 paragraph 2; page 751; pages 752-753 4.2 The Millau binarySAX parser; pagers 754-755 4.6 The Millau code spaces; pg 750, Col. 1 through pg 751, Col. 1, within this section there is an sample XML document, the document has been tokenized to numbers in hexadecimal for ease of processing, Attribute Name to Token Number are displayed in Table 1 and 2 of the specification for reference purposes. Thus after the transformation from program format to numbered token format, the XML code section has been tokenized and broken into various pieces represented by tokens), wherein numeric tokens are in incrementally consumable form, (pages 752-753 4.2. The Millau binary SAX parser, pages753-753 4.3. The Millau binary DOM parser; As noted above, consumable form will be interpreted as execute or parse. In Girardot, tokenized

Art Unit: 2152

information are parsed and attribute information are retrieved by various parsers.

Specifically, the one such parser, the Millau DOM, is to parse the tokens in a LIFO order, in a sequential, one by one, and orderly manner. Additionally, the parser further break the tokens down to retrieve their specific attribute values. The parser look for tag name in the element code space. It then creates an element node. If the stack is empty, it means that this element is the root of the document, so it is appended to the document node. If the stack is not empty, the element is appended to the last opened element (the first in the LIFO stack).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAROENCHONWANIT, BUNJOB can be reached on (571)272-3913. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 9, 2005
CZ



BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER